27.080 White-Rodgers Div. of Emerson Electric
June 20, 1983

RCRA COMPLIANCE INSPECTION REPORT

FACILITY

White Rodgers Division
of Emerson Electric Company
9797 Reavis Road
St. Louis, MO 63123
(314) 577-1353

MO-ID #01422

INTRODUCTION:

Inspector: Tom Ellis
Date of Inspection: May 10, 1983
Hazardous Waste Activity: Generator

This facility of White-Rodgers Division of Emerson Electric Company is a manufacturer of thermostats and electronic devices for controlling heating and cooling systems. Manufacturing processes at the facility include electroplating, screw machine, punch press, painting, degreasing, assembly, soldering and brazing.

The hazardous wastes generated at the facility, the rates of generation, and final disposition are as follows:

1. Waste Oil (no I.D.) - 1000 gal/mo of waste oil was reported to the inspector as being generated from the degreasing operation. The waste oil is separated from trichloroethane in the fume degreasing unit. This unit continuously separates (distills) waste oil from the 1,1,1 trichloroethane while degreasing is taking place. Waste oil generated at this facility has not been registered with the Department. Waste oil is stored in a 1000 gallon underground storage tank prior to pick-up by Gateway Petroleum.

   Waste 009 - a waste oil collected from centrifuging of metal cuttings and chips from machinery operations, is indicated to be generated at 9 gal/mo and combined with the other plant waste oil.

2. Waste 1,1,1 trichloroethane (007) - This waste was originally reported to be generated at a rate of one gallon/mo from cleaning of metal parts by dipping in 1,1,1 trichloroethane. The reported rate of generation does not appear to be accurate based on manifesting to date and Mr. Knowles statements to the inspector that White-Rodgers distills this material if it is what he referred to as chlorothane VG, but can not reuse if it is chlorothane UG. Generation sources, rates, and disposition for this category of wastes needs to be clarified.

3. Humiseal Waste (005) - 55 gal/six weeks of this toxic and ignitable waste was reported by Mr. Knowles as presently being generated.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
8460 Watson Road St. Louis, Missouri 63119 (314) 849-1313

Christopher S. Bond Governor
Fred A. Lafser Director
St. Louis Regional Office

This waste results from cleaning out tanks of a waste mixture from dipping of assemblies for moisture protection after wave soldering. Mr. Knowles notation for this waste indicates it to be a polybutal methocralate in xylene. He also indicated this to be the primary (largest volume) hazardous waste generated at the facility. Disposition was indicated to currently be to Diaz Refining.

4. Waste Sodium Hydroxide Solution (006) - 8 X 55 gal/10 mo of this waste was indicated to be currently generated from cleaning of rusty and greasy parts. This waste is indicated to be disposed of at ENSCO in Eldorado, Arkansas from the original generator registration forms. This corrosive waste was indicated by Mr. Knowles to be the second largest waste stream.

5. Waste hydrochloric acid solution (010) - this corrosive waste was reported to be currently generated at 4 X 15 gal/three mo. from cleaning of rusty iron parts. This waste was reported by Mr. Knowles to be the third largest waste stream produced. The original generator registration indicates this waste is disposed at ENSCO in Eldorado, Arkansas.

6. Engineering Lab Wastes (011) - 15 gal/four mo. of this waste was indicated to be presently produced. Mr. Knowles notation indicated this is everything non-water soluble. Disposition from the original generator registration forms is to ENSCO in Eldorado, Arkansas.

7. Engineering Lab Wastes (no I.D.) - 15 gal/four mo of this waste is indicated to be presently produced. Mr. Knowles' notation is that this is water soluble waste from the engineering lab.

8. Waste 001, 002, 003 and 004 are process discharges from electroplating, painting, degreasing, and silicon carbide fusion process operations respectively. All these processes are ultimately discharged to MSD sewers. The inspector did not receive further information from Mr. Knowles concerning these waste streams other than what was provided on the original generator registration forms from July of 1980. Adequate analysis and characterization of these waste streams was not provided at that time in order to properly evaluate the hazardous or non-hazardous nature of the discharge from each process. Generator re-registration may clarify this issue.

   A check was made by the inspector with Mr. Lee Powers of MSD at Bissell Point on June 9, 1983 to see if White Rodgers was complying with the MSD sewer discharge criteria. Mr. Powers reviewed MSD sampling data from samples collected at the two discharge points at the facility on July 1, 1982 and November 24, 1983 and informed the inspector the White Rodgers was meeting the discharge criteria at the time of sampling.

9. Waste solvents (008) - According to Mr. Knowles this waste is currently generated at 9 gal/mo from clean-up of tanks from the ink printing operation and status is as indicated on the original generator registration.

10. Waste solvents (012) - According to Mr. Knowles this waste is currently generated at 9 gal/mo from control element filling operations and status is as indicated on the original generator registration.

11. Waste phosphoric acid (013) - According to Mr. Knowles this waste is no longer generated.

Reviewed in total, the status of the generator waste registration at White-Rodger's is not satisfactory. Reregistration of all waste streams is necessary. This reregistration should be done with the guidance of the DNR-Waste Management Program so that a clear picture of the general categories of waste generated, their generation rates and final disposition can be ascertained.

UNSATISFACTORY FEATURES:

1. Waste Oil has not been registered with the Department as being generated at this facility as required by 10 CSR 25-4.020(3).

2. The existing generator registration forms do not accurately indicate the status of hazardous waste generation and disposition at the facility as required by 10 CSR 25-5.010(3).

3. Many wastes indicated as being generated at the facility have not been manifested to an off-site TSD facility, nor is there a storage area for hazardous waste at this facility. It is apparent that hazardous wastes generated at the facility are not being managed properly per the requirements of 10 CSR 25-7.050(1) and 10 CSR 25-5.010(5).

4. It is evident, due to the facility not having a storage area and because no wastes generated at the facility were being stored on the day of the inspection, that wastes are not being properly containerized, dated, and marked per the requirements of 10 CSR 25-7.050(2)(A)3. as referenced to 10 CSR 25-5.010(6). and 10 CSR 25-7.050(2)(A)4.

5. Documentation was not available to indicate that a storage area is inspected and maintained per 10 CSR 25-7.050(2)(A)1. as referenced to 10 CSR 25-7.011(3)(E)1. through 4.

6. Documentation was not available to indicate if ignitable and/or reactive wastes were being properly handled per 10 CSR 25-7.050(2)(A)2. as referenced to 10 CSR 25-7.011(3)(G)1. and 2.

7. Documentation was not available to indicate compliance with the personnel training requirements of 10 CSR 25-7.050(2)(A)5. as referenced to 10 CSR 25-7.011(3)(F).

8. Documentation was not available to indicate compliance with the preparedness and prevention requirements of 10 CSR 25-7.050(2)(A)5. as referenced to 10 CSR 25-7.011(4).

9. Documentation was not available to indicate compliance with the contingency planning and emergency procedure requirements of 10 CSR 25-7.050(2)(A)5. as referenced to 10 CSR 25-7.011(5).

10. Since there was not a storage area there was not a waste confinement structure in it meeting the criteria of 10 CSR 25-7.050(3)(F).

COMMENTS:

The inspector arrived at the facility at approximately 10:00 a.m. Tuesday, May 10, 1983, and was met by Mr. Loren M. Knowles, Special Projects Manager for White-Rodgers Division of Emerson Electric. Mr. Knowles led the inspector to his office where the inspector reviewed with Mr. Knowles the purpose of the inspection. The inspector then reviewed with Mr. Knowles the wastes presently generated, the manifests completed to date, and the personnel training, preparedness and prevention, and the contingency planning documentation required of White-Rodgers to have on file as a generator.

Mr. Knowles then led the inspector on a brief tour of the plant pointing out some of the plant operations and the fume degreasing equipment. The inspector questioned Mr. Knowles about where waste oil recovered from the fume degreaser and the centrifuge was stored. He indicated it was stored in an underground waste oil tank outside, but was not sure of the tank's location. Mr. Knowles also stated that a storage area for hazardous waste had not been established yet.

The inspector and Mr. Knowles then returned to Mr. Knowles' office where the inspector reviewed the inspection with him and further discussed waste generation at White Rodgers. The inspector emphasized to Mr. Knowles that he should re-register the waste streams generated at White-Rodgers. Mr. Knowles was given the name of Mr. Joe Davis of the Waste Management Program to contact in this regard.

RECOMMENDATIONS:

1. Register as a generator of waste oil per 10 CSR 25-4.020(3).

2. Comply with the generator registration requirements of 10 CSR 25-5.010(3).

3. Properly manage all hazardous wastes generated at the facility per 10 CSR 25-7.050(1) and 10 CSR 25-5.010(5).

4. Properly containerize, date, and mark all hazardous wastes generated at the facility per 10 CSR 25-7.050(2)(A)3. as referenced to 10 CSR 25-5.010(6). and 10 CSR 25-7.050(2)(A)4.

5. Document inspections and maintenance at a hazardous waste storage area per 10 CSR 25-7.050(2)(A)1. as referenced to 10 CSR 25-7.011(3)(E)1. through 4.

6. Document that ignitable and/or reactive wastes are being properly handled per 10 CSR 25-7.050(2)(A)2. as referenced to 10 CSR 25-7.011(3)(G)1. and 2.

7. Document compliance with the personnel training requirements of 10 CSR 25-7.050(2)(A)5. as referenced to 10 CSR 25-7.011(3)(F).

9. Document compliance with the contingency planning requiprements of 10 CSR 25-7.050(2)(A)5. as referenced to 10 CSR 25-7.011(5).

10. Provide a waste confinement structure for the hazardous waste storage area meeting the criteria of 10 CSR 25-7.050(3)(F).

APPROVED:

F. Donald Maddox, P.E.
Regional Administrator
St. Louis Regional Office

PREPARED BY:

Thomas B. Ellis, P.E.
Environmental Engineer
St. Louis Regional Office

FDM/TBE/be

Attachment

ATTACHMENT 5 HAZARDOUS WASTE GENERATOR CHECKLIST

Name of Facility: White Motors Div-Emerson Electric Date: 5/10/83

Address: 9797 Reavis Rd. St. Louis, Mo. 63123

Missouri I.D. # 01422

Facility Representative: Loren M. Knowles

EPA I.D. # —

Title: Special Projects Manager

Phone Number 314-577-1353

Is this facility a TSD? NO Transporter? NO, #

Provide a brief description of the manufacturing process.

makes thermostats and electronic devices for controlling heating and cooling systems, etc.
Processes include electroplating, screw machines, punch presses, painting, degreasing, assembly, soldering + brazing

List the hazardous wastes produced:

	Waste	Amount/month	Kilogram/month	I.D. #	Disposition
1.	Waste Oil	1000 gal/mo		NONE	Gateway
2.	Humiseal Waste	55 gal/ 6 weeks		005	Diaz Refining
3.	Sodium Hydroxide Waste	44 gal/mo.		006	Disposal
4.	Hydrochloric Acid Waste	20 gal/mo		010	Disposal
5.	Engineering Lab Waste Solvents	5 gal/mo (water sol.)		011	Disposal
	" " " "	5 gal/mo (non-water sol.)			
	Total	?			

Wastes 001-004 are non-hazardous?, Waste 007 is ~~contracted~~ reclaimed

Subtract amount going to Resource Recovery or sewer

Amount subject to generator fee

(subject if over 2000 lbs. of waste is produced)

Is generator fee applicable to this facility? Yes ___ No ___

If so, is the fee being paid? Yes ___ No ___ ?

waste oil from degreasing process distillation unit is not registered. 009 combines w/ that waste oil 008 is as indicated on registration

If the total amount of hazardous waste produced is less than 1000 kg/month, is over 1000 kg ever accumulated? Yes ___ No ___

waste 012 is as orig registered
waste 013 is no longer generated
there is no 014 waste

Inspector's Name: Tom Ellis

Title: Env. Eng

Office: SCRO

OK for manifests completed.

A. MANIFESTS 10 CSR 25-5.010(4)

1. Generator's Missouri and EPA I.D. Number ..... ☐
2. Serially increasing shipment number ..... ☑
3. Generator's name, address, phone number, EPA I.D. number. ☑
4. All transporters' names, addresses, phone numbers, and EPA I.D. numbers ..... ☑
5. Hazardous waste management facility name, address, phone number, and EPA I.D. number ..... ☑
6. Proper DOT shipping name and hazard class ..... ☑
7. Quantity, container type, and number of units being shipped ..... ☑
8. Emergency instructions and special handling procedures ..... ☑
9. Proper certification ..... ☑
10. Manifest properly signed and dated ..... ☑

11. Time between generator and facility signature less than 7 days ..... ☑
12. Manifests returned within 30 days ..... ☑
13. If not, exception generator report submitted within 45 days ..... ☑
14. Completed manifests submitted to Department quarterly .... ☑

Comments on manifests

- some waste was shipped on manifest four or five times

B. CONTAINERIZATION AND LABELING 10 CSR 25-5.010(6)

15. Waste properly containerized and labeled before being transported off-site ..... ☑
16. Containers marked "Hazardous Waste" ..... ☑

(no waste stored on day of inspection)

6.70

inspection of storage area

HAZARDOUS WASTE GENERATOR CHECKLIST

C. STORAGE STANDARDS 10 CSR 25-7.050 — NO STORAGE FACILITY OR AREA

17. Facility inspected and maintained .....
18. Ignitable and reactive wastes properly handled ..... unknown
19. Date of accumulation marked .....

For storage of less than 1000 kg proceed to Section G.
For storage of over 1000 kg complete Sections D, E, & F.

D. PERSONNEL TRAINING 10 CSR 25-7.050 cross-referenced to 10 CSR 25-7.011(3)(F) — NONE

20. Completed classroom or on-the-job training .....
21. Job title, description, and name of person filling position .....
22. Written record of the type and amount of training given .....
23. Documentation confirming that training has been given ....

E. PREPAREDNESS AND PREVENTION 10 CSR 25-7.050(2)(A) cross-referenced to 10 CSR 25-7.011(4)

24. Internal communication or alarm system .....
25. Device in the hazardous waste operation area capable of summoning emergency assistance .....
26. Fire control, spill control, and decontamination equipment available .....
27. Adequate water supply for fire control equipment .....
28. Adequate and proper safety equipment available .....
29. Adequate aisle space .....
30. Arrangements with local emergency agencies .....

STORAGE AREA

F. CONTINGENCY PLAN AND EMERGENCY PROCEDURES 10 CSR 25-7.050(2)(A) cross-referenced to 10 CSR 25-7.011(5)

31. Contingency Plan ..... NONE
32. Detailed description of procedures that personnel must implement in response to fires, explosions, or release of hazardous waste .....
33. Describe formal arrangements with emergency agencies .....
34. Names, addresses, and phone numbers (home & office) of emergency coordinators .....
35. Emergency equipment including its description and location .....
36. Evacuation plan if applicable .....

Comment: _____

G. CONTAINER STORAGE 10 CSR 25-7.050(3) — NO CONTAINERS NO STORAGE AREA

37. Containers in good condition .....
38. Containers storing incompatible wastes or products are separated or protected from each other .....
39. Containers kept closed in storage .....
40. Containers stored within a waste confinement structure (if applicable) that meets the criteria of 10 CSR 25-7.050(3)(F) .....
41. Containers of ignitable or reactive waste are stored at least 50 feet from the property line .....

Comment: _____

H. STORAGE TANKS 10 CSR 25-7.050(4) — one underground waste oil storage tank 001 42,000 gal

42. Tanks in good condition .....
43. Procedure for inspecting tanks .....
44. Above ground tanks - adequate spill confinement structures ..... N/A
45. Underground tanks that cannot be entered have adequate leak detection systems .....
46. Leak detection procedure and schedule developed and used .....
47. Open tanks have ____ ft. freeboard ..... N/A
48. Incompatible wastes in tanks safely and properly stored ..... N/A
49. Volatiles are not placed in open tanks ..... N/A
50. Ignitable or reactive wastes in tanks safely and properly stored .....
51. Ignitable or reactive wastes in covered tanks stored in accordance with NFPA's buffer zone requirements .....
52. Controls to prevent overfilling .....
53. Daily inspection of overfilling control equipment .....
54. Daily inspection of freeboard in uncovered tanks ..... N/A

HAZARDOUS WASTE STORAGE TANKS

Waste Contained	Volume of Tank
waste oil	1000 gal

Comment: Mr. Knowles stated that he had not set up a storage area for hazardous wastes. He also did not know where the underground waste oil storage tank was located. Mr. Knowles stated that Bill Wegman was familiar with the waste oil storage. He was not available during the inspection.

I told Mr. Knowles that he had failed to re-register the waste streams with the EPA. Suggested he contact Joe Davis in this regard.

Inspector's Signature Thomas B. Ellis